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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/904,460	07/16/2001	Takashi Fujimori	OSP-10594	8062

466 7590 10/08/2004

YOUNG & THOMPSON
745 SOUTH 23RD STREET
2ND FLOOR
ARLINGTON, VA 22202

EXAMINER

LERNER, MARTIN

ART UNIT	PAPER NUMBER
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2654

DATE MAILED: 10/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/904,460

Applicant(s)

FUJIMORI, TAKASHI

Examiner

Martin Lerner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 to 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 to 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/16/01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because of the following minor informalities:

In Figure 7A, Step 703, "avaiable" should be —available—.

In Figure 8A, Step 803, "avaiable" should be —available—.

In Figure 10A, Step 1103, "avaiable" should be —available—.

In Figure 12, element 15a, "character recognition service control" should be — speech recognition service control —. (Page 37, Lines 18 to 19)

In Figure 12, element 16a, "sevice" should be — service —.

In Figure 12, element 17c, "proudction" should be — production —.

In Figure 13, block 1210 should be labeled "analog-to-digital conversion". (Page 1, Line 21)

Figures 13 to 15 should be labeled "Prior Art" because the Specification, Pages 1 to 7, describes these embodiments as being conventional.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office Action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement

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sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheets should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office Action. The objection to the drawings will not be held in abeyance.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The title's description of a "human-machine interface" and "human-machine interaction" is vague.

The following title is suggested:

Speech recognition and speech synthesis interface architecture

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claims 3 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claims 3 and 8 contain the limitation describing expression media "such as sound and picture." The phrase "such as" renders the claims indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1, 2, 4, 6, 7, and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by *Shank et al.*

Regarding independent claims 1 and 6, *Shank et al.* discloses an abstract interface for media and telephony services, comprising

"a network" – network 100 may be any type of data network, including an Internet Protocol (IP) network (column 2, lines 50 to 54: Figure 1);

“a plurality of nodes that are interconnected with the network, wherein human-machine interface functions are actualized in forms of distributed objects allocated to the nodes and are realized by mediating interaction between the nodes” – media service 120, telephony service 130, and application 140 (“a plurality of nodes”) are coupled to network 100; services and application are located on various nodes throughout the system (column 2, line 40 to column 3, line 30: Figure 1); media services 220 include text-to-speech service 222 and speech recognition service 224 that represent “human-machine functions” for interacting via an interface (column 5, lines 38 to 50: Figure 2); services are located on the network as distributed object-oriented resources (“distributed objects allocated to the nodes”), where Common Object Request Brokered Architecture (CORBA) controls interoperability of object services (“mediating interaction between the nodes”)(column 3, lines 31 to column 4, line 6: Figure 2).

Regarding independent claim 7, *Shank et al.* further discloses:

“wherein each of the nodes corresponds to an application node that performs a prescribed application for a human user by way of a human-machine interface function thereof or a service node that provides a specific service in relation with execution of the prescribed application” – media service 120, telephony service 130, and application 140 are coupled to network 100; services and application are located on various nodes throughout the system (column 2, line 40 to column 3, line 30: Figure 1); media services 220 include text-to-speech service 222 and speech recognition service 224 (column 5, lines 5 to 50: Figure 2); application 140 is “an application node that performs a

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prescribed application”; media service 120, telephony service 130, text-to-speech service 222, and speech recognition service 224 are “a service node that provides a specific service in relation with execution of the prescribed application.

Regarding claim 2, *Shank et al.* discloses that each of the nodes corresponds to an application 140 for performing input/output functions for a specific application or a service node 120, 130, 220, 222 for providing information input to or output from the application 140 (Figures 1 and 2); additionally, media services 220 are “a composite node” because fax 228 and announcement/audio signals 226 are applications and text-to-speech service 222 and speech recognition service 224 are service nodes providing input and output information from application 140 (column 4, lines 38 to 50: Figure 2).

Regarding claim 4, *Shank et al.* discloses an application-server interface that enables application 140 (“the application node”) to request functions from media server 200 (“the service node”), enables media server 200 to send events to application 140, and establishes and manages sessions, groups, and connections (column 7, line 43 to column 8, line 26); establishing a session and requesting a function to media server 200 from application 140 is equivalent to sending “a start request of a prescribed service”.

Regarding claim 10, *Shank et al.* discloses media services 220 include text-to-speech service 222 and speech recognition service 224 (column 5, lines 38 to 50: Figure 2).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Shank et al.* in view of *Papineni et al.*

Shank et al. discloses media service 120 includes text-to-speech services 222 and speech recognition services 224, which are "low-order service nodes" that perform processing upon "expression media such as sound and picture" because text-to-speech and speech recognition are media services based upon sound. (Column 5, Lines 39 to 50; Figure 2). However, *Shank et al.* does not expressly disclose "a high-order service node" that performs data processing independently from the expression media and is commonly shared by the low-order service node. *Papineni et al.* discloses a natural language task-oriented dialog manager, wherein a plurality of nodes are operatively coupled to a hub 10. The nodes include an application-specific backend 60, a speech recognizer 20, and a text-to-speech synthesizer 70, where hub 10 controls interaction between the modules. (Column 7, Line 40 to Column 8, Line 18; Figure 1) Moreover, *Papineni et al.* discloses a Natural Language Understanding Unit 30, which is "a high-order service node" that performs data processing independently of an expression media of speech and is shared by dialog manager 40 and speech recognizer 20 to

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parse an input expression and provide a semantic representation. The purpose of sharing a natural language understanding resource is to provide a dialog manager that is more versatile in interacting with a user, responds to information on a wide variety of topics, and is easily adaptable to new tasks. (Column 2, Line 66 to Column 3, Line 5) It would have been obvious to one having ordinary skill in the art to share a natural language resource as taught by *Papineni et al.* for a high-order service in the interface for media and telephony services of *Shank et al.* for the purpose of providing a dialog manager that is more versatile in interacting with a user, responds to information on a wide variety of topics, and is easily adaptable to new tasks.

10. Claims 5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Shank et al.* in view of *Ji et al.*

Shank et al. discloses Common Object Request Broker Architecture (CORBA), which implicitly involves elements of the ISO-OSI reference model hierarchy, but does not expressly disclose nodes having a hierarchical layered structure from top to bottom of an application or service node, a proxy of a distributed object, an object transport structure and a remote class reference structure, a network transport layer, and a network interface circuit. However, *Ji et al.* generally discloses a well known architecture for the ISO-OSI reference model hierarchy, wherein there is an application layer 406 ("an application node"), an FTP Proxy Server 421 or SMTP Proxy Server 422 ("a proxy of a distributed object"), transport 403 ("an object transport structure") operating under a File Transfer Protocol (FTP) 417, Transmission Control Protocol

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(TCP) 415 or User Datagram Protocol (UDP) 416 ("a remote class reference structure"), a network layer 402 ("network transport layer"), and Network Interface Cards 411 ("a network interface circuit"). (Column 5, Line 39 to Column 6, Line 54: Figure 4). The ISO-OSI hierarchical model is commonly known to be inherently characteristic of the architecture of the Internet for interacting under CORBA. It would have been obvious to one having ordinary skill in the art to provide the elements of the ISO-OSI hierarchical model as taught by *Ji et al.* in the interface for media and telephony services of *Shank et al.* because these elements are commonly known to be inherently characteristic of the architecture of the Internet for interacting under CORBA.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

Cheyen et al., White et al., and Ladd et al. disclose related art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin Lerner whose telephone number is (703) 308-9064. The examiner can normally be reached on 8:30 AM to 6:00 PM Monday to Thursday.

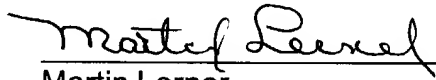
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (703) 305-9645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ML

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Martin Lerner
Examiner
Group Art Unit 2654